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Application No. 10/735,732
Docket No. 740756-2684REMARKS

The above amendment with the following remarks is submitted to be fully responsive to the Office Action of December 28, 2006. Reconsideration of this application in light of the amendment and the allowance of this application are respectfully requested.

Claims 1-15 were pending in the present application prior to the above amendment. In response to the Office Action, claim 1 is amended. Therefore, claims 1-15 are now pending in the present application and are believed to be in proper condition for allowance.

Rejections under Heuer

Referring now to the Office Action, claims 1-7 and 13-15 are again rejected under U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Heuer et al. (U.S. Patent No. 6,368,737). Claims 8-11 are again rejected under 35 U.S.C. 103(a) as obvious over Heuer in view of Yang et al. (U.S. Patent No. 5,723,873). Claim 12 is again rejected under 35 U.S.C. 103(a) as obvious over Heuer in view of Ara (U.S. Patent No. 6,613,454).

Amended independent claim 1, from which claims 2-15 depend, recites "wherein the hole injecting layer comprises an electron-accepting organic compound and a conjugate polymer that is soluble in an organic solvent". Applicants respectfully submit that Heuer does not teach, disclose or suggest a hole injecting layer that includes a conjugate polymer doped with an electron-accepting organic compound, as is described in independent claim 1.

Although Heuer teaches "the polythiophenes in the dispersion or solution are preferably used in cationic form as are obtained, for example, by treatment of the neutral thiophenes with oxidizing agents" (col. 11, lines 17-21), Heuer fails to teach that the hole injection zone includes an electron-accepting organic compound.

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More specifically, Heuer discloses "potassium peroxodisulphate", an inorganic compound, and not an organic compound.

Because Heuer does not teach, disclose or suggest each and every element of independent claim 1, Applicants respectfully request the rejection be withdrawn and the claim be reconsidered for allowance.

With respect to the rejection of claims 8-11 as obvious under Heuer in view of Yang, and the rejection of claim 12 as obvious under Heuer in view of Ara, Applicants respectfully traverse. Each of claims 8-12 depend from claim 1 and it is respectfully submitted that neither Yang nor Ara, whether taken alone or in combination with Heuer, would have taught or suggest the claimed combination of features including "wherein the hole injecting layer comprises an electron-accepting organic compound and a conjugate polymer that is soluble in an organic solvent," as set forth in Applicants' claim 1. Accordingly, the Yang and Ara documents fail to remedy the deficiencies pointed above with respect the Heuer patent. Additionally, the dependent claims recite additional features defining combinations including further points of distinction. Applicants respectfully request the rejections be withdrawn.

Rejections under Heuer and Lidberg

Claims 1-7 and 13-15 are again rejected under 35 U.S.C. 103(a) as obvious over Heuer in view of Lidberg et al., Proceedings of SPIE- The International Society for Optical Engineering (1995), 2397 (Optoelectronic Integrated Circuit Materials, Physics, and Devices), p. 633-42. Claims 8-11 are again rejected under 35 U.S.C. 103(a) as obvious over Heuer in view of Lidberg in further view of Yang. Claim 12 is again rejected under 35 U.S.C. 103(a) as obvious over Heuer in view of Lidberg in further view of Ara. These rejections are respectfully traversed, as neither Heuer nor Lidberg et al. teach or suggest each and every feature set forth in the pending claims.

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As above, amended independent claim 1, from which claims 2-15 depend, recites "wherein the hole injecting layer comprises an electron-accepting organic compound and a conjugate polymer that is soluble in an organic solvent". Applicants respectfully submit that Heuer does not teach, disclose or suggest a hole injecting layer includes a conjugate polymer doped with an electron-accepting organic compound, as is described in independent claim 1.

As above, Applicants respectfully submit that Heuer teaches that "the polythiophenes in the dispersion or solution are preferably used in cationic form as are obtained, for example, by treatment of the neutral thiophenes with oxidizing agents" (col. 11, lines 17-21), but Heuer fails to teach the hole injection zone includes an electron-accepting organic compound. More specifically, Heuer discloses "potassium peroxodisulphate", an inorganic compound, and not an organic compound.

Applicants respectfully submit that the combination of Lidberg with Heuer is improper, and that there is no motivation to combine Lidberg and Heuer. It is respectfully submitted that the motivation provided by the Office for altering the Heuer reference in view of the teachings of Lidberg is too general, and thus not relevant to the specific limitations recited. As such, Applicants submit that the motivation provided in the action was arrived at only after first viewing Applicants' own disclosure. However, such hindsight reasoning resulting from the Office using Applicants' claims as a laundry list to gather the various claim elements is impermissible and cannot be used to establish a *prima facie* case.

The applied prior art does not suggest claimed features relating to an electron-accepting organic compound in a hole injection layer, in the context of the other features recited in claim 1, nor does it contemplate the advantageous features, described above, resulting therefrom.

With respect to the rejection of claims 8-11 as obvious under Heuer in view of Lidberg in further view of Yang, and the rejection of claim 12 as obvious under Heuer in view of Lidberg in further view of Ara, Applicants respectfully traverse.

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Each of claims 8-12 depend from claim 1 and it is respectfully submitted that neither Yang nor Ara, whether taken alone or in combination with Heuer and Lidberg, would have taught or suggest the claimed combination of features including "wherein the hole injecting layer comprises an electron-accepting organic compound and a conjugate polymer that is soluble in an organic solvent," as set forth in Applicants' claim 1. Accordingly, the Yang and Ara documents fail to remedy the deficiencies pointed above with respect the Heuer patent and Lidberg document. Additionally, the dependent claims recite additional features defining combinations including further points of distinction. Applicants respectfully request the rejections be withdrawn.

Conclusion

In view of the foregoing, it is submitted that the present application is in condition for allowance and a notice to that effect is respectfully requested. However, if any issue remains after considering this response, the Examiner is invited to call the undersigned to expedite the prosecution and work out any such issue by telephone.

Respectfully submitted,



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